CLAIMS

1. A hydraulic composite material having a substance-adsorbing function, humidity-adjusting function, and/or photocatalytic function, characterized in that calcium silicate cement or calcium phosphate cement is deposited as a hydraulic material on a suitable substrate in the presence of water so as to be hardened and to thereby cause the cement to solidify, be fixed, and self-adhere to the application surface.

2. The composite material according to claim 1, wherein the substrate is a humidity-adjusting material or a photocatalyst.

3. The composite material according to claim 1, wherein the hydraulic material is applied to the surface of the photocatalytic particles and the photocatalytic particles are bonded by a hydration reaction via the hydraulic material.

4. The composite material according to claim 1, wherein calcium silicate cement as the hydraulic material has as its main component calcium silicate, calcium aluminate silicate, or calcium magnesium silicate.

5. The composite material according to claim 4, wherein the calcium silicate is alite or belite, the calcium aluminate silicate is anorthite, and the calcium magnesium silicate is diopside.

6. The composite material according to claim 1, wherein calcium phosphate cement as the hydraulic material is octacalcium phosphate.

7. A method of producing hydraulic composite material, characterized in that a suspension or solution containing the above hydraulic material is mixed with a photocatalyst.

8. A method of producing hydraulic composite material, characterized by immersing a photocatalyst in a solution containing phosphorus and calcium, and depositing the hydraulic calcium phosphate on the surface thereof.

9. The method of producing hydraulic composite material according to claim 8, wherein octacalcium phosphate is deposited on the surface by hydrolyzing octacalcium phosphate.

10. The method of producing hydraulic composite material according to claim 8, wherein the calcium phosphate has photocatalytic properties.

11. The method of producing hydraulic composite material according to claim 10, wherein the photocatalytic activity of the calcium phosphate is brought about by light with a wavelength of 250 nm or less, does not occur with sunlight, fluorescent light, or another normal light source, and is initiated solely when irradiated with low-wavelength UV.

12. A structural member characterized in that the hydraulic composite material according to any one of claims 1 to 5 is formed on the surface of a structural member, and a substance-adsorbing function, humidity-adjusting function, and/or photocatalytic function is imparted thereto.